WAC/042(05.10.98)

Ms. Regina M. Keeney
Chief of the International Bureau
Federal Communications Commission
Washington, D.C. 20554

Dear Ms. Keeney:

The National Telecommunications and Information Administration on behalf of the Executive Branch Agencies, has approved a Draft U.S. Proposal for WRC-00. This draft proposal addresses agenda item 1.17. At present, the allocation for the Earth exploration-satellite (passive) service in the band 18.6 - 18.8 GHz is on a primary basis in Region 2, but on a secondary basis in Regions 1 and 3. This allocation must be upgraded to primary status if the long-term ability to obtain environmental data with passive spaceborne sensors is to be preserved. Compatibility between the passive sensors and the fixed and fixed-satellite services requires adoption of constraints on the parameters of the fixed and fixed-satellite systems that use the band. NTIA has left this limit in square brackets because these values are still under study within ITU-R WP &C.

Sincerely,

William T. Hatch
Acting Associate Administrator
Office of Spectrum Management

Enclosure

INTERNATIONAL TELECOMMUNICATION UNION			
	WRC-2000	**WORLD RADIOCOMMUNICATION CONFERENCE**	**Document: RCS 00-101p/6** **Date: October 5, 1998** **Original: English**
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United States of America

PROPOSALS FOR THE WORK OF THE CONFERENCE

(RCS DRAFT)

PROPOSAL FOR AGENDA ITEM 1.17

to consider possible worldwide allocation for the earth exploration-satellite (passive) and space research (passive) service in the band 18.6 - 18.8 GHz, taking into account the results of the ITU-R studies

Background Information:

At present, the allocations for the Earth exploration-satellite (passive) and the space research (passive) services in the band 18.6 - 18.8 GHz are on a primary basis in Region 2, but on a secondary basis in Regions 1 and 3. This allocation must be upgraded to primary status if the long-term ability to obtain environmental data with passive spaceborne sensors is to be preserved. Compatibility between the passive sensors and the fixed and fixed-satellite services requires adoption of constraints on the parameters of the fixed and fixed-satellite systems that use the band. A pfd limit of [-101] dBW/m^2 in a reference bandwidth of 200 MHz on systems in the fixed-satellite service will enable passive sensors to perform their mission if measurements are restricted to portions of the sensor orbit where the sensor is moving away from the equator. A limit of [-3] dBW on the power in the 18.6 - 18.8 GHz band that is delivered to an antenna of a fixed service station with a [-10] dBi backlobe gain will enable sharing with the fixed service.

Proposal:

USA/ / 1
MOD

GHz

18.6 – 18.8

Allocation to Services		
Region 1	Region 2	Region 3
18.6 – 18.8 EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) **MOD** S5.523 MOBILE except aeronautical mobile ~~Earth Exploration-Satellite (passive)~~ Space Research (passive) **MOD** S5.522	**18.6 – 18.8** EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) **MOD** S5.523 MOBILE except aeronautical mobile SPACE RESEARCH (passive) **MOD** S5.522	**18.6 – 18.8** EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) **MOD** S5.523 MOBILE except aeronautical mobile ~~Earth Exploration-Satellite (passive)~~ Space Research (passive) **MOD** S5.522

Reasons: To establish a common worldwide primary allocation to the Earth exploration-satellite (passive) services to be used for environmental measurements.

USA/ / 2

MOD

S5.522 ~~In making assignments to stations in the fixed and mobile services, administrations are invited to take account of passive sensors in the Earth exploration-satellite and space research services operating in the band 18.6 - 18.8 GHz. In this band, administrations should endeavour to limit as far as possible both the power delivered by the transmitter to the antenna and the e.i.r.p. in order to reduce the risk of interference to passive sensors to the minimum.~~ In the band 18.6 - 18.8 GHz, fixed and mobile service stations shall be limited to a total power delivered to each antenna of [-3] dBW.

Reasons: To enable passive sensors and the fixed service to operate in the band without excessive interference to the sensors.

USA/ / 3

MOD

S5.523 ~~In assigning frequencies to stations in the fixed-satellite service in the direction space-to-Earth, administrations are requested to limit as far as practicable the power flux-density at the Earth's surface in the band 18.6 - 18.8 GHz, in order to reduce the risk of interference to passive sensors in the earth exploration-satellite and space research services.~~ In the band 18.6 - 18.8 GHz, the fixed-satellite service shall be limited to a power flux density at the Earth's surface of [-101] dBW/m^2 in a reference bandwidth of 200 MHz for all angles of arrival.

Reasons: To enable passive sensors and the fixed-satellite service to operate in the band without excessive interference to the sensors.

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